

## READ AND SAVE THESE INSTRUCTIONS

### WARNING

#### TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number in the warranty.
2. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
6. Ducted fans must always be vented to the outdoors.
7. Do not use this unit with an additional speed control device.
7. To reduce the risk of fire, use only metal ductwork.
8. Do not install this product with the activating switch directly behind a burner or element. Minimum distance between the switch and the edge of the burner should be 4 inches.
9. Loose-fitting or hanging clothing should never be worn when operating this appliance. They may be ignited by burners/elements on cooktop.
10. Children should not be left alone or unattended in the area where this appliance is in use.
11. When flaming foods, turn the blower OFF. An operating blower may spread the flames.
12. This unit must be grounded.

#### TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

1. Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.
2. Always turn hood ON when cooking at high heat or when cooking flaming foods.
3. Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.
4. Use proper pan size. Always use cookware appropriate for the size of the surface element.

#### TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, OBSERVE THE FOLLOWING<sup>a</sup>:

### WARNING

1. SMOTHER FLAMES with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. BE CAREFUL TO PREVENT BURNS. If the flames do not go out immediately, EVACUATE AND CALL THE FIRE DEPARTMENT.
2. NEVER PICK UP A FLAMING PAN - You may be burned.
3. DO NOT USE WATER, including wet dishcloths or towels - a violent steam explosion will result.
4. Use an extinguisher ONLY if:
  - A. You know you have a Class ABC extinguisher, and you already know how to operate it.
  - B. The fire is small and contained in the area where it started.
  - C. The fire department is being called.
  - D. You can fight the fire with your back to an exit.

<sup>a</sup> Based on "Kitchen Firesafety Tips" published by NFPA.

### CAUTION

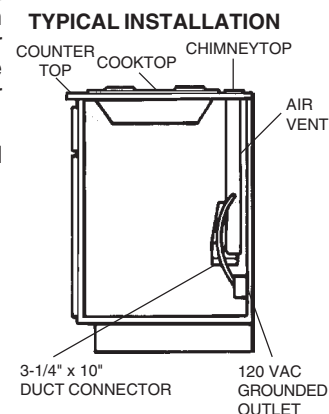
1. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
2. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
3. Clean filters and grease-laden surfaces frequently.
4. Do not repair or replace any part of this appliance unless specifically recommended in this manual. All other servicing should be done by a qualified technician.
5. Please read specification label on product for further information and requirements.

### PLANNING

This downdraft blower system is designed to be used to exhaust airborne contaminants when cooking with a variety of gas or electric cooktops. It can be mounted in island, peninsula, or conventional wall locations.

This system can be easily installed following these basic steps:

- Cut out the countertop opening.
- Mount the unit in the cabinet.
- Install exterior blower
- Connect the ductwork and electrical.
- Install the cooktop.



**INSTALLER: Save this manual for Electrical Inspector and Homeowner to use.**  
**HOMEOWNER: Use and Care Information on Page 4.**

## PLANNING - (continued)

**Note:** The high level of air flow of this appliance may affect the gas flame on some types of gas cooktops. This is NORMAL and will cause no harm, but can be corrected by lowering the speed of the blower.

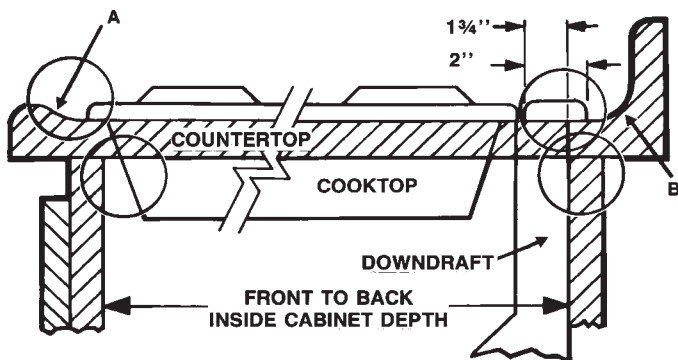
## SPECIFICATIONS

VOLTS	AMPS	Hz.	DISCHARGE
120	6.0 MAX.	60	3-1/4 X 10

Install downdraft with an exterior blower that draws 6.0 AMPS or less.

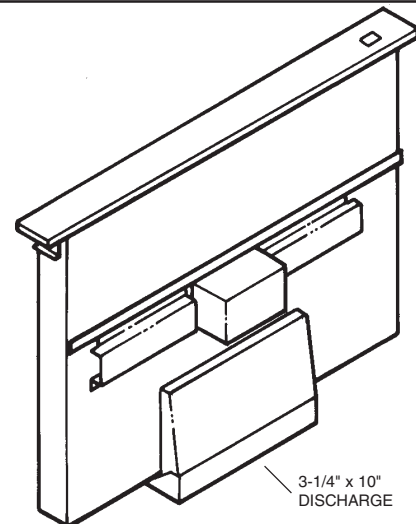
## TAKE MEASUREMENTS

1. Refer to the cooktop installation instructions for dimensions of cooktop, countertop cut-out, and cabinet requirements. The Model 2830 will fit in most 30" wide cabinets and the Model 2836 will fit in most 36" wide cabinets. However, it is recommended that oversized cabinets be used for easier installation.
2. Cooktop depth can vary greatly from one to another. This may cause the fit of these two appliances to be rather tight.

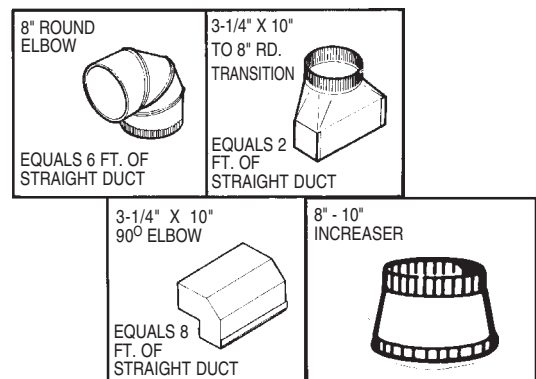


Pay special attention to the areas of potential interference highlighted above. A countertop with (A) a raised lip and/or (B) a backsplash may not allow enough flat countertop for a proper installation. Note that 2" of flat countertop is required behind cooktop and that 1-3/4" is necessary between the back edge of the cooktop and the inside of cabinet back.

## PLAN THE DUCTWORK



1. This downdraft blower system is most efficient when used with 10" round ductwork. Use a combination of elbows and transitions (shown below), closest to the downdraft, in order to get from 3-1/4" x 10" to 10" round as soon as possible.
2. For best performance: Choose the ducting option which allows the shortest length of ductwork and a minimum number of elbows and transitions. Check location of floor joists, wall studs, electrical wiring or plumbing for possible interference.



3. The system will operate most efficiently when the ductwork does not exceed 40 feet of equivalent duct. The illustrations, above, shows equivalent feet of elbows and transitions. The number of feet of straight duct plus the equivalent feet of transitions and/or elbows to be used should equal 40 feet or less.

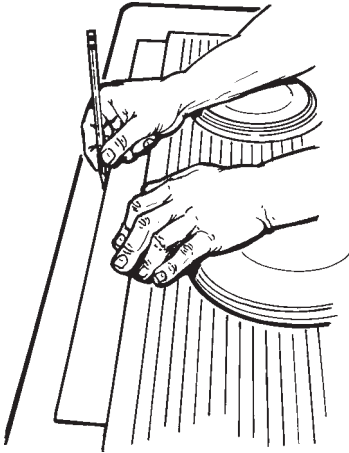
**NOTE:** The equivalent feet of various roof and wall caps has been taken into consideration. Do not include them in this calculation.

## PLAN THE WIRING

1. The downdraft and exterior blower system normally draws 6 AMPS and requires a 120 VAC, 60 Hz circuit.
2. The unit has a 2 ft. long power cord with a 3-pronged plug. Plan to provide a grounded outlet in a location which will allow the unit's power cord to reach. (Note: If the Model 2830 is being installed in a 30" wide cabinet or the Model 2836 is being installed in a 36" wide cabinet, the outlet cannot be located on the back wall of cabinet.) Outlet may also be wall-mounted, with access hole in cabinet.

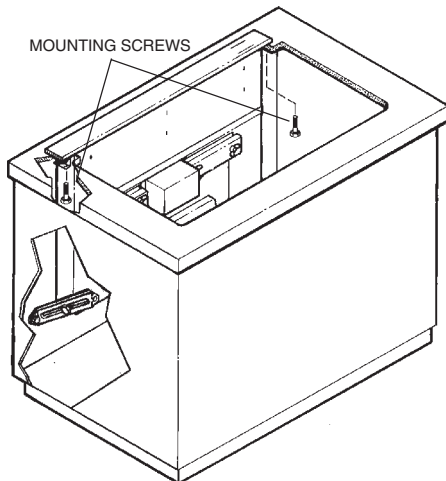
## CUT COUNTERTOP OPENING

1. Lay out and cut the cooktop cut-out far enough FORWARD so downdraft will fit behind it.
2. Set cooktop in place and slide it as far forward as possible. Center and square it with edges of countertop.



3. Place the plastic template against the back flange of the cooktop and center it. Trace around template to mark the downdraft opening.
4. Remove cooktop from countertop.
5. Cut downdraft opening. Be careful not to chip edges of countertop.

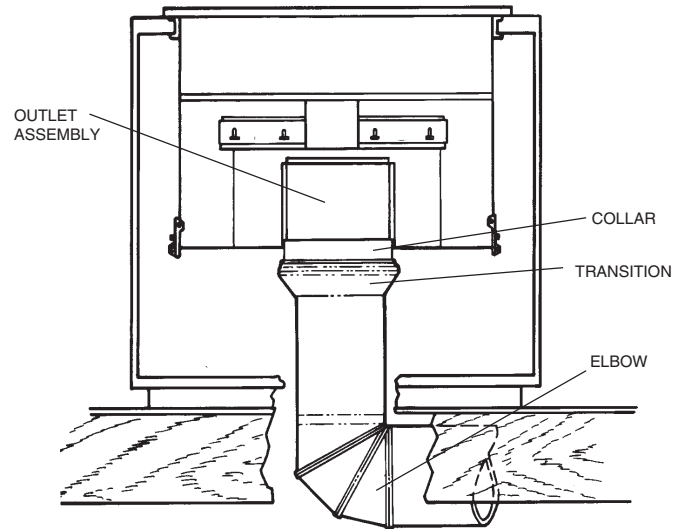
## MOUNT THE UNIT



1. Set downdraft into opening. Extend leveling brackets to floor of cabinet so downdraft sits straight. (Note: Leveling brackets can be removed and re-attached in other positions. Bottom flange may have to face inward in tight cabinet installations.)
2. Secure the downdraft to the countertop as follows: Hold the downdraft against the back of countertop cut-out and tightening the 2 mounting screws (one on each end of unit) on underside of countertop. Use a wood shim between screw and underside of granite countertops.
3. Screw leveling brackets to bottom of cabinet. Tighten screws holding leveling bracket to unit on each side.

## INSTALL DUCTWORK

**CAUTION - BEFORE CUTTING HOLE IN CABINET FOR DUCTWORK:** Check for interference with floor joists, wall studs, electrical wiring or plumbing.

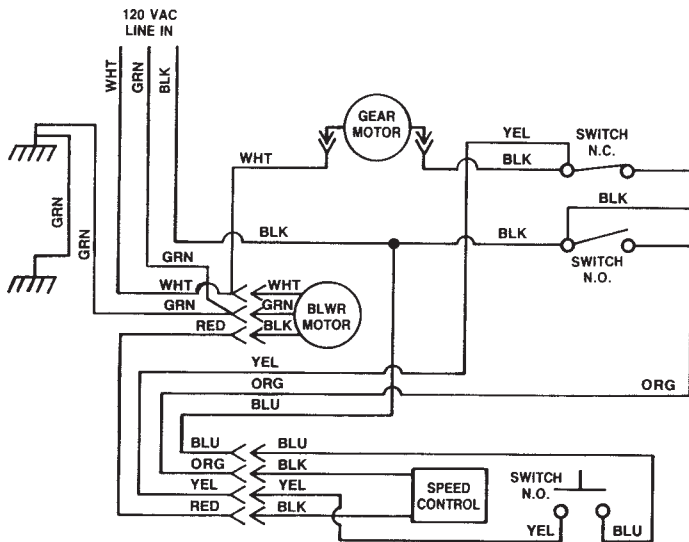


1. Cut hole in cabinet as well as holes in wall or floor as necessary.
2. Mount the exterior blower and work back towards the cabinet, attaching all ductwork, elbows and transitions as previously planned. Tape all ductwork connections to make them secure and air tight.
3. Connect ductwork (and transition, if required) to downdraft. If necessary, LOOSEN nuts and screws that hold the blower in place, and slide outlet assembly left or right to meet ductwork. Re-tighten screws and nuts.

## INSTALL ELECTRICAL WIRING

1. Mount a standard wiring box, with 3-pronged grounded receptacle, inside the kitchen cabinet. Make sure the unit's power cord can easily reach it.
2. Run appropriate power cable into cabinet and connect it to electrical box and receptacle.
3. Exterior blower may not exceed 6.0 Amp rating.
4. Run 2-wire plus ground power cable from the remote blower to wiring box on downdraft. Remove wire box cover and attach cable using proper certified or recognized connector. Use recognized wire connectors to connect wires. Make sure wires cannot come loose from connectors after assembly.
5. Connect downdraft wiring to power cable from remote blower. Wire black to black, white to white and green to green or bare wire.
6. Replace wiring box cover.

# WIRING DIAGRAM

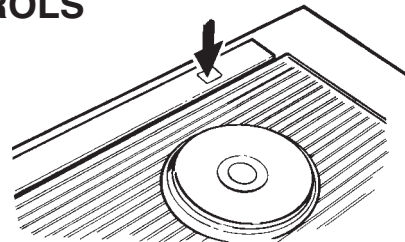


3. Remove switch cover from right end of air vent.
4. Loosen the 2 screws holding the switch bracket in place. Position switch bracket so that activating switch just comes in contact with underside of switch membrane. Tighten screws.
5. Replace switch cover, gently lower air vent into chimney, and plug in power cord. Re-connect electrical power and check operation.

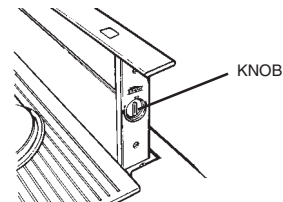
## USE AND CARE

Always turn the downdraft blower on before you begin cooking to establish an air flow in the kitchen. Let the blower run for a few minutes to clean the air after you turn the cooktop off. This will keep the whole kitchen cleaner and brighter.

## CONTROLS



Turn the downdraft blower ON by pressing down on the activating switch. The air vent will rise.



The blower can be turned ON or OFF and its speed can be adjusted with the recessed knob on the right side of the air vent.

## INSTALL COOKTOP

1. Align the cooktop with the downdraft and fasten cooktop in place.

**Note:** Accurate alignment of cooktop and downdraft is necessary to ensure that there is no interference when air vent is raised and lowered. There should be a gap of 1/32"-1/16" between the back of the cooktop and the front of the downdraft cover.

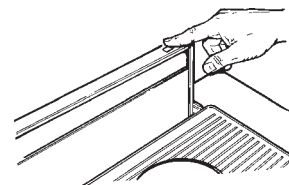
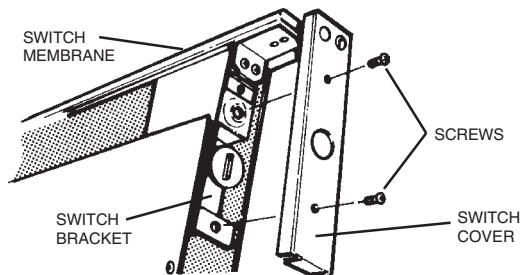
## ADJUSTMENT

The downdraft is factory-adjusted for proper operation. However, shipping and handling may affect the position of the activating switch.

To adjust position of activating switch:

**WARNING: To avoid possible electrical shock, personal injury or death - Disconnect electrical power.**

1. If downdraft is plugged into electrical outlet, unplug it.
2. Lift air vent straight up and cock it slightly so it remains in the UP position.



Turn the downdraft blower OFF by pressing the activating switch again. The air vent will go down and the blower will shut OFF.

**Note:** For most convenient operation, set the blower to your favorite speed. The blower will come on to this speed whenever the activating switch is pressed and the air vent rises.

## USE AND CARE - (Continued)

### CLEANING

**WARNING: Always disconnect electric power supply before cleaning unit.**

Use a mild detergent suitable for painted surfaces. DO NOT USE ABRASIVE CLOTH, STEEL WOOL PADS, OR SCOURING POWDERS.

Wash the 2 aluminum grease filters in a mild detergent solution or a dishwasher. Remove them from the air vent by grasping the tab at the top of each filter.

Note: The filters are different sizes. Be sure to replace them as removed, (wider one on the left), with tabs UP.

### SERVICING

**WARNING: Always disconnect electric power supply before servicing unit.**

It may be necessary to remove the outlet assembly from the cabinet in order to service components such as the blower motor or air vent mechanism.

Disconnect power to the cooktop and remove it first. Reverse the steps under "MOUNT THE UNIT" to remove the downdraft from the cabinet.

Service parts are available from your local Broan distributor or from Broan Service Department, P.O. Box 140, Hartford, WI 53027 Phone: 1-800-637-1453.

# SERVICE PARTS

## Models 2830 & 2836

### Downdraft Blower Systems

KEY NO.	PART NUMBER	DESCRIPTION	QTY.
1	93400038	Bushing, 7/8"	2
3	99400024	Bushing, Heyco, 1/2"	1
4	93470012	Roller	1
5	97011927	Switch Assembly, Up/Down	1
8	99360165	Knob	1
10	97009972	Lower Switch Bracket Assembly	1
11	97011293	Green Ground Wire	1
12	97010997	Wire Harness	1
16	98007642	Back-up Plate	1
17	98007780	Crank	1
18	98008168	Switch Cover	1
19	97011325	Chimney Assembly with Slide (Model HV303)	1
	97011326	Chimney Assembly with Slide (Model HV363)	1
22	98008175	Outlet Extension	1
23	99710032	Spacer	2
24	97011259	Top Bracket Assembly, Right	1
25	97011260	Top Bracket Assembly, Left	1
26	97011322	Top, Stainless (30")	1
	97011323	Top, Stainless (36")	1
28	97010999	Outlet Assembly	1
29	97011443	Gear Motor Cover	1
30	97010998	Air Box Assembly (30")	1
	97011000	Air Box Assembly (36")	1
33	97009786	Filter Kit (30") (contains 2 filters)	1
	97009787	Filter Kit (36") (contains 2 filters)	1
45	99090939	End Cap	1
46	99080295	Gearmotor	1
47	99110850	Slide Strip	3
49	99170245	Screw, #8-18 x .375 SLT HX WS HD	16
50	99150471	Screw, #10-32 x .500 HX WS BDRH	2
51	99150526	Screw, #8-18 x .250 SA PH TRH	6
52	99150488	Screw, #8-18 x .500 No. 5 PH Trim	2
53	98008186	Cover, Air Box Opening	1
54	99260488	Nut, 10-24	4
55	98008174	Air Box Cover (30")	1
	98008173	Air Box Cover (36")	1
56	97011500	Gearmotor Bracket Assembly	1
57	98008187	Leg Support	2
58	99200202	Screw, 1/4-20 x 1/2 SEMS	5
60	99160225	Screw, #8-32 x 1/2 PH HD MS	4
61	99160356	Screw, #10-24 x 3/8 SH WH LOCK	1
62	99160361	Screw, #10-24 x 3/8 PH FL HD LD	1
64	99260437	Nut, 10-24 HEX KEPS	6
66	99380633	U-Bolt, 10-24	1
67	99400060	Strain Relief	1
68	93260447	Nut, Hex Flange	1
70	98008415	Wire Channel Clamp	2
71	93270493	Wire Tie	3
74	99160382	Screw, 1/4-20 x 1.250 Hex. Hd.	2
75	99150415	#8-18 x .250 PH TR HD BPT	3
76	98008183	Outlet Box Cover	1
82	98008166	Cover - Gear Motor	1
84	99100503	Seal - Foam (30")	1
	99100504	Seal - Foam (36")	1
**	97011320	Chimney Assembly, Complete (30") (Includes Key Nos. 5, 8, 19, 45, 51, 52, & 71)	
**	97011321	Chimney Assembly, Complete (36") (Includes Key Nos. 5, 8, 19, 45, 51, 52, & 71)	

#### OPTIONAL DOOR KITS

MODEL NO.	DESCRIPTION
273001C	30" White
273002C	30" Biscuit
273023C	30" Black
273601C	36" White
273602C	36" Biscuit
273623C	36" Black

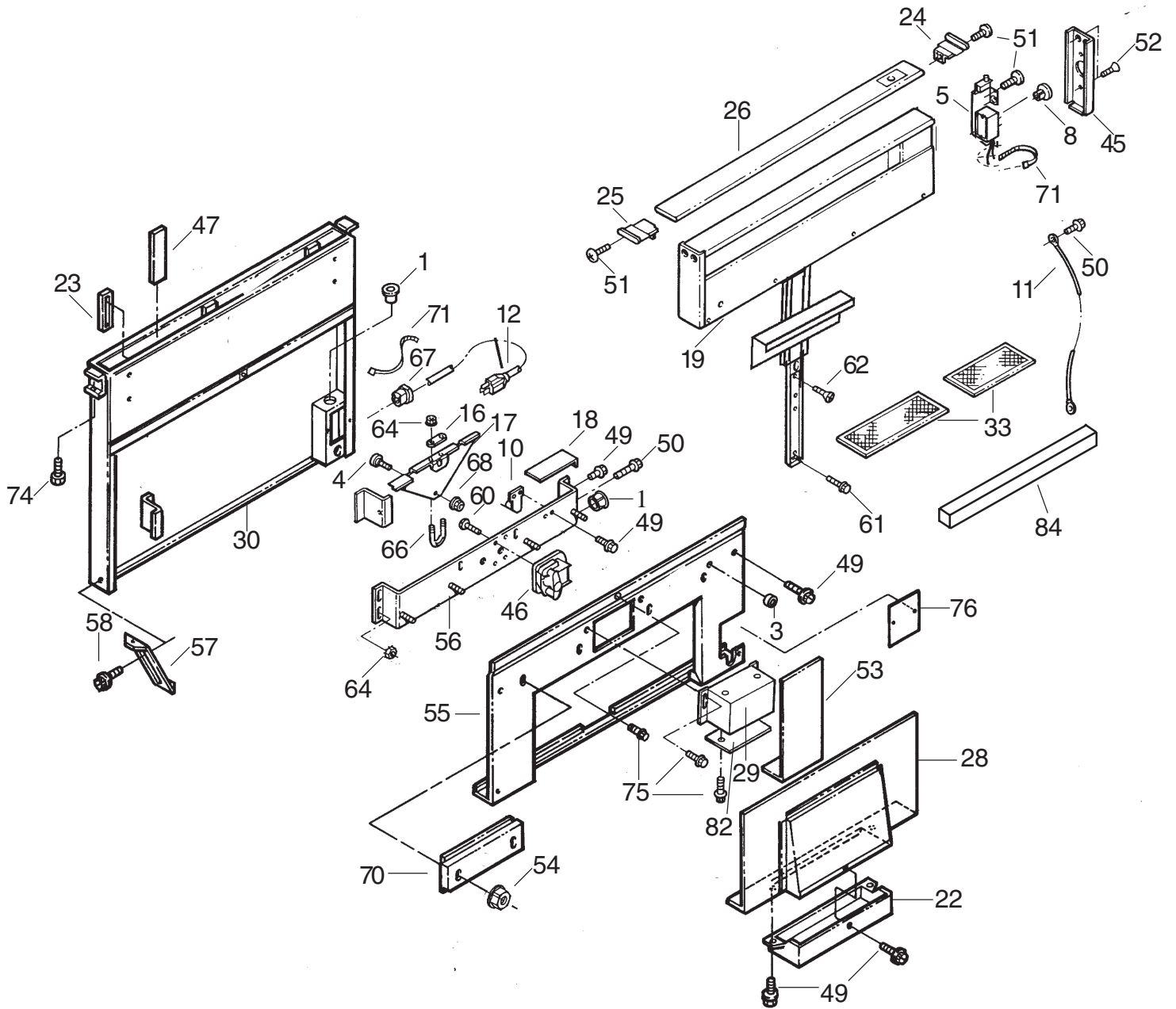
\* Standard Hardware - May be purchased locally.

\*\* Service Assembly - Contains numerous parts



# SERVICE PARTS

## Models 2830 & 2836 Downdraft Blower Systems



# WARRANTY

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## **BROAN-NUTONE ONE YEAR LIMITED WARRANTY**

Broan-NuTone warrants to the original consumer purchaser of its products that such products will be free from defects in materials or workmanship for a period of one year from the date of original purchase. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

During this one-year period, Broan-NuTone will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service.

THIS WARRANTY DOES NOT EXTEND TO FLUORESCENT LAMP STARTERS AND TUBES. This warranty does not cover (a) normal maintenance and service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by Broan-NuTone), faulty installation or installation contrary to recommended installation instructions.

The duration of any implied warranty is limited to the one-year period as specified for the express warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

BROAN-NUTONE'S OBLIGATION TO REPAIR OR REPLACE, AT BROAN-NUTONE'S OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. BROAN-NUTONE SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. This warranty supersedes all prior warranties.

To qualify for warranty service, you must (a) notify the appropriate company at the address or phone number below (b) give the model number and part identification and (c) describe the nature of any defect in the product or part. At the time of requesting warranty service, you must present evidence of the original purchase date.

In the U.S. contact:

**Broan-NuTone LLC**, 926 West State Street, Hartford, WI 53027 (1-800-637-1453)

In the U.S. contact:

**NuTone, Inc.**, 4820 Red Bank Road, Cincinnati, OH 45227 (1-800-543-8687)